Scheme 1

1a. $R = H, X = H \text{ to 1b. } R = SO_3H, X = H$

2a. $R = NO_2$, X = H to **2b**. $R = NO_2$, $X = SO_3H$

3a. R = CI, X = H to 3b. R = CI, X = SO₃H

4a. R = t-butyl, X = H to **4b.** R = t-butyl, X = H and SO₃H (~1:1)^a

5a. $R = CH_2CH_2OH$, X = H to **5b**. $R = CH_2CH_2OH$, $X = SO_3H^5$

6a. $R = SO_3H$, X = H to **6b.** $R = SO_3H$, X = H

Fig. 1

$$H_2N$$
 I_2N
 I_2N

Fig. 2

Fig. 3

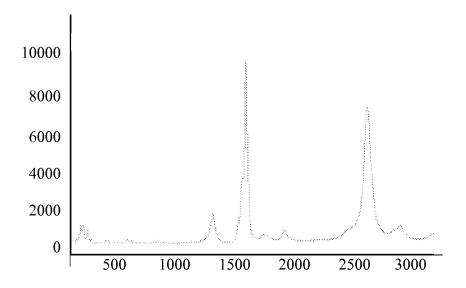
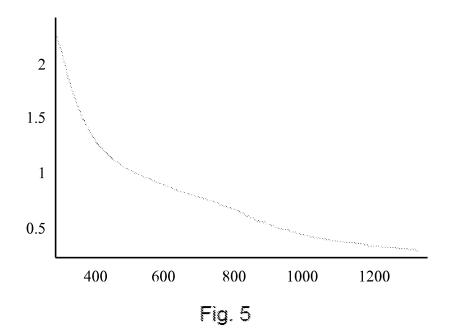
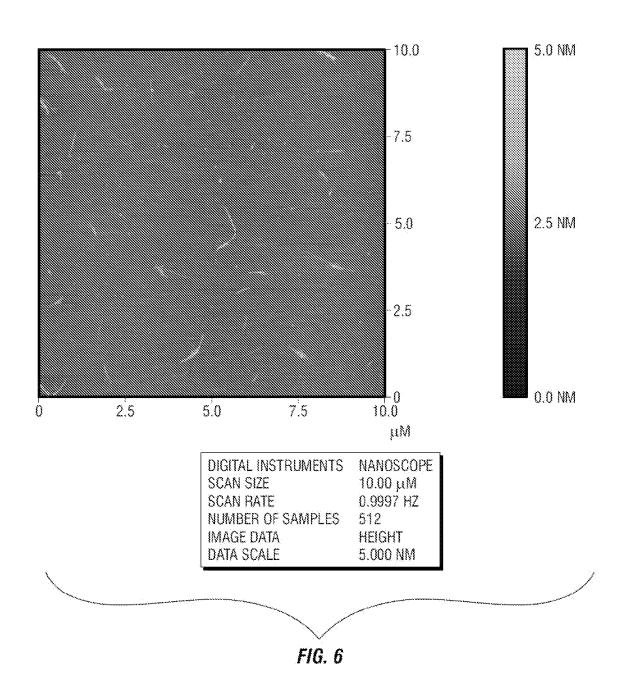
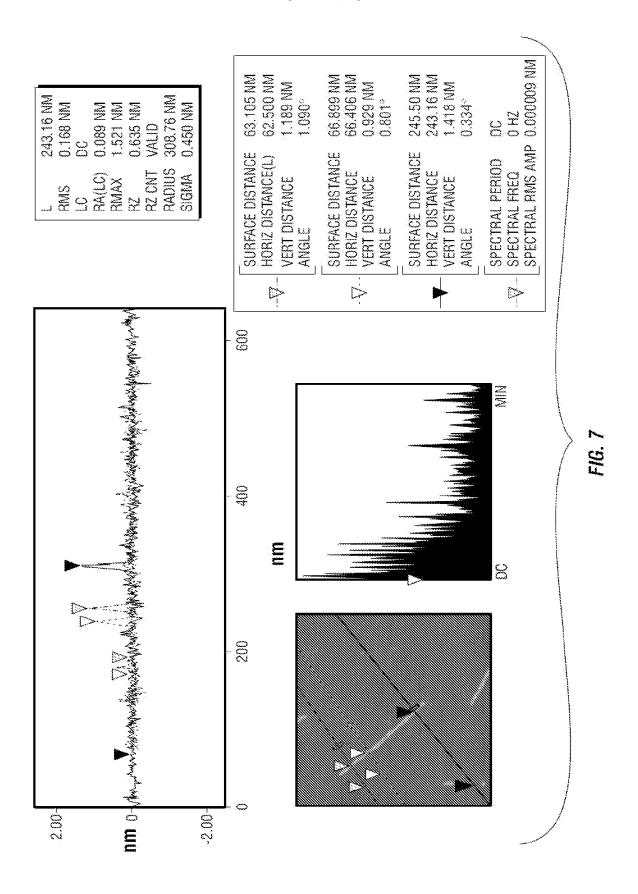


Fig. 4





6/11 REPLACEMENT SHEET



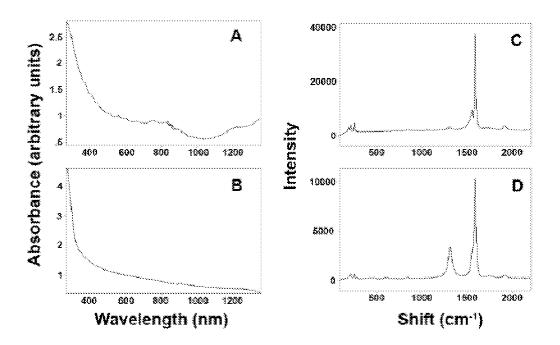


Fig. 8

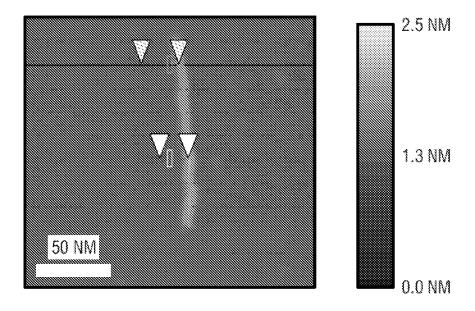


FIG. 9A

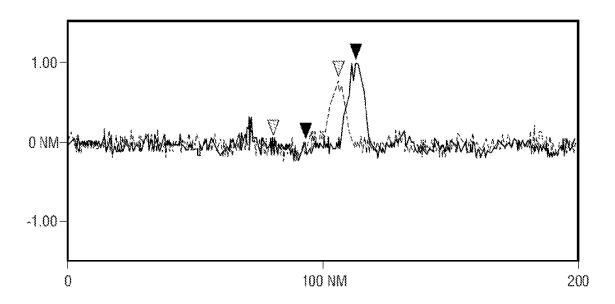
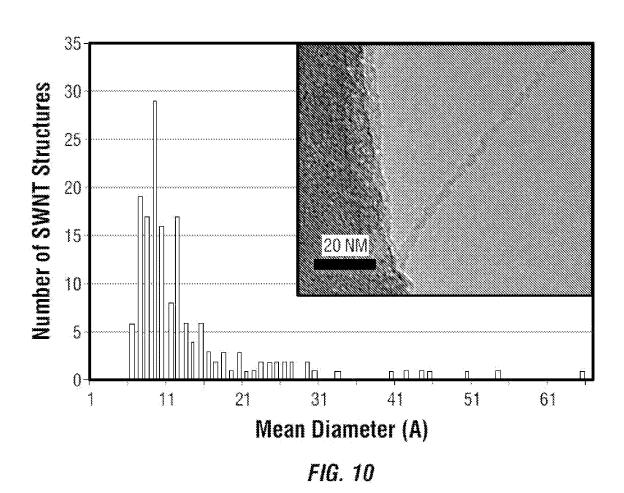


FIG. 9B



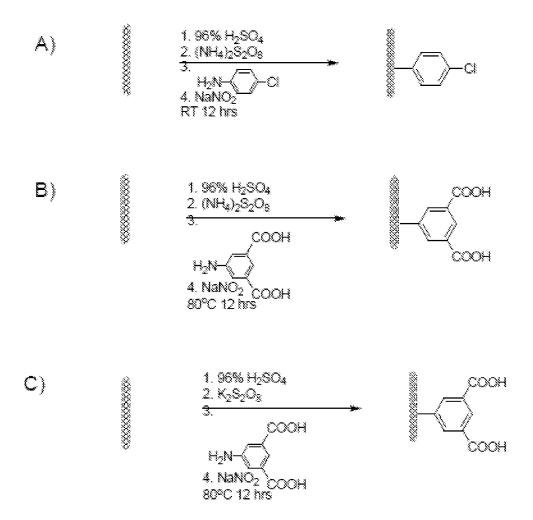


Fig. 11

Scheme 3

H-B = Acidic Media

Fig. 12

Scheme 4

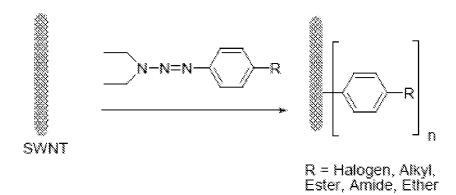


Fig. 13